Outcomes of Mechanical Circulatory Support in Patients With High-Risk Percutaneous Coronary Intervention - A Single-Center Retrospective Study

Gabriel Alugba MD[1], Karishma Narain MBBS[1], Oghenetejiri Gbegbaje MD[1], Daniel Salcido MD[1], Maria Cassanova MD[1], Stephanie Rosales MD[1], Aron Schwarcz MD[2]

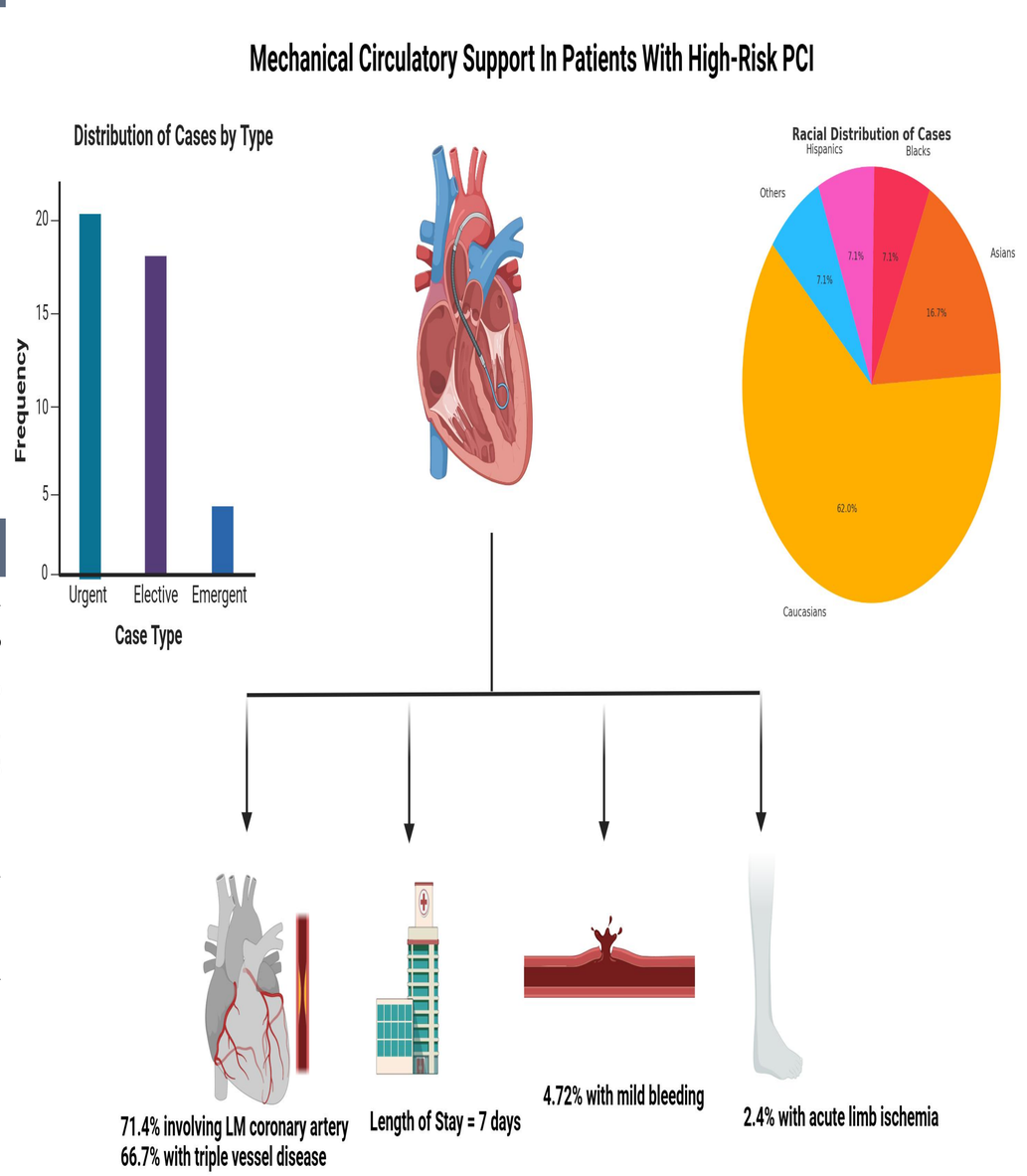
[1]Department of Medicine Englewood Hospital and Medical, NJ [2]Division of Cardiology, Englewood Hospital and Medical Center, NJ

Background

- Mechanical circulatory support (MCS) such as Impella is used to stabilize patients in cardiogenic shock and provide hemodynamic support in patients during high-risk percutaneous coronary intervention (HRPCI).
- We sought to analyze the outcomes of patients undergoing HRPCI requiring MCS at Englewood Hospital, NJ.

Method

- This retrospective, single-center study included patients undergoing Impella-CP facilitated HRPCI from March 2021 to May 2024. IRB approval was obtained, and patient's information was deidentified.
- Data on demographics, clinical, and procedural characteristics were collected.
- IBM SPSS Statistics 23 was used for data analysis.



Result

- A total of 42 patients were included in our study, with a mean age of 76.31 years and a median ejection fraction of 35%.
- Of these, 69% (29) were males, 61.9% were Caucasians, 16.7% (7) were Asians, and 7.1% (3) were Blacks.
- 47.6% (20) were urgent cases, while 42.9% (18) and 9.5% (4) were elective and emergent cases, respectively. 66.7% (28) had triple vessel disease, 28.5% (12) double, and 4.8% (2) single vessel disease. 71.4% (30) involved the left main coronary artery.
- Inpatient mortality was 7% (3), and the mean length of stay was 7 days. As for complications, 4.72% had type 2 (mild) bleeding, with the rest having no bleeding, and 2.4% (1) had acute limb ischemia.

Conclusion

- This study shows that MCS in HRPCI was predominantly seen in patients with procedures in the left main coronary artery. Outcomes showed low mortality, low risk of major bleeding, and acute limb ischemia, this may be attributed to the institutional policy of having two interventional cardiologists present during the procedure.

ENGLEWOOD HEALTH | Hackensack Meridian School of Medicine